

1160 W. Orange Grove Ave., Arcadia, California 91006, U.S.A.
© Copyright 1973

AN INTERFAMILIAL COURTSHIP (NYMPHALIDAE, PIERIDAE)

ARTHUR M. SHAPIRO

Department of Zoology, University of California, Davis, California 95616

ATTEMPTED MATINGS INVOLVING widely different butterfly species are seldom reported (Downey, 1962; Shapiro, 1973). On 11 August 1972 a bizarre instance was observed near Willow Slough, between Davis and Woodland, Yolo Co., California. This involved a male Buckeye, *Precis coenia* Hubner, courting a white female Orange Sulphur, *Colias eurytheme* Boisduval.

Several hundred *C. eurytheme* of both sexes were feeding at blossoms of alfalfa and yellow star-thistle (*Centaurea solstitialis*) along the dirt road at the west border of a newly-cut alfalfa field. Five male *P. coenia* were spaced along the road, behaving territorially. The observation began at 1816 hours, with a clear sky, light southerly wind, and air temperature in the mid-80s F. One male Buckeye rose as a white female flew over its perch, following it closely some fifteen feet until it lit and began to feed on a blossom of *C. solstitialis*. The *Precis* lit on the same blossom, just behind the *Colias* and slightly below it, and began moving about and curving its abdomen to the (observer's) left in a repeated attempt to make genital contact with the female, which shortly became quiescent. After about three minutes the *Colias* flew a few inches to another flower, the *Precis* following and resuming its attempts to mate. The female never showed any recognition of the male's presence. The pair was then collected for examination: the *Precis* male was extremely fresh, the *Colias* female somewhat worn, with one large intact spermatophore and many mature or near-mature ova. Female *Colias* in this condition generally display rejection behavior to courting males of their own species (Shapiro, 1970).

The remaining four *P. coenia* were watched for another half hour but no unusual behavior was noted, and no females of that species were seen. Pairs of *C. eurytheme* in copula were common, however. There is no resemblance in color or pattern between *C. eurytheme* and *P. coenia*, and no apparent basis for this male's "mistake."

LITERATURE CITED

- DOWNEY, J. C. 1962. Inter-specific pairing in Lycaenidae. *J. Lepid. Soc.* 16: 235-237.
- SHAPIRO, A. M. 1970. The role of sexual behavior in density-related dispersal of Pierid butterflies. *Amer. Nat.* 104: 367-372.
- 1973. An attempted interfamilial mating (Lycaenidae, Nymphalidae). *J. Lepid. Soc.*, in press.